Department of Defense RFID Industry Association Meeting

March 23, 2004

RFID Industry Association Meeting

- **Welcome**
  - Two Key Points for Today
- **An Update on RFID**
  - Overview
  - Pilots
  - Technology Update
- **Your Role**
- **Next Steps**

What is in it for me

- **DoD Business**

- **Improvements in internal supply chain**

- **Recognition for early adopters**

What has been done to date

- **Developed initial policy**
- **Established communications channels**
  - OSD briefings
  - DoD AIT Vendor Advisory Group
  - Conferences/Summits for Industry
- **Conducted technology demo**
- **Established first operational implementation**
- **Conducting other initial implementations**

Goal

- **Goal by July 2004 - Definition of:**
  - What type of tags
  - Where to place the tags
    - Where on the box
    - Where in the supply chain are the tags applied

Key Points for Today

- **Why RFID - Supply Chain Enabler**
- **The Passive RFID Requirement**
  - A Tag on a Box by 2005
- **Partnership on RFID Implementation with Associations**

DoD's intent for the RFID implementation

- **Provide asset visibility support needed by warfighters**

- **Optimize supply chain by using tags to capture information hands-off at each node of the supply chain**

- **Issue some specifications on tag placement, but suppliers will ultimately be responsible to ensure readability of tags**

Policy Update

DoD's RFID Policy

WHO **is affected by DoD's RFID policies ?**

WHAT **do the policies cover ?**

WHEN **does the implementation of the policies take effect ?**

WHO is affected ?

ALL DoD suppliers of ALL material and goods purchased by the Department**

- As a supplier to DoD, the policy impacts your business

- DoD will continue to partner with our suppliers on this critical initiative

** Excludes bulk commodities

WHAT does the policy cover ?

Two technologies in the RFID policy:

- **Active RFID tags**

- **Passive RFID tags**

RFID Policy – Active Tag Highlights

Active RFID technology highlights

- tags have an onboard power source with large memory
- long distance read/write range (100 meters)
- expensive technology ($100+ / tag) relative to passive technology
- currently implemented globally at regional DoD Logistics nodes
- tags are recycled
- implementation is being expanded based on newly released policy

RFID Policy – Active Tag Requirements

- **Applied to all freight containers and 463L consolidated air pallets and major organizational equipment**

- **Used for improving intransit and receipt visibility using data-rich RFID tags with content level detail (nomenclature, stock number…etc.)**

- **Applied at the point of origin by all activities (including vendors and contractors)**

RFID Policy – Passive Tag Highlights

Passive RFID technology highlights

- no onboard power source
- limited read/write range (10 feet)
- relatively inexpensive technology
- implemented using EPC compliant tags and readers
- tags are not reused
- covers the broadest class of goods
- greatest potential for pervasive use

RFID Policy – Passive Tag Requirements

- **Passive RFID tags on cases and pallets shipped to DoD receiving points beginning Jan 2005**

- **Passive RFID tags on packaging for items that require a Unique Identification (UID) shipped to DoD receiving points beginning Jan 2005**

- **Tags will be EPC-compliant**
  - Initial Implementations: currently available EPC tags
  - When available: EPC Gen 2 tag

WHEN does the implementation of the policy take effect ?

- **Active RFID – Implementation already in effect**

- **Passive RFID – effective January 1, 2005**
  - All new solicitations issued after October 1, 2004 for delivery of materiel on or after January 1, 2005.

Passive RFID - Operational Implementation

Cross-docking operation at FISC Norfolk Ocean Terminal

- Tracking small package shipments
- Expanding to all shipments
- Eliminating hand-scanning when stuffing containers
- Using tag as *transaction of record!*

Current DoD Passive RFID Initial Implementations

- **DLA/Army Combat Feeding Technical Demonstration**

- **DLA Individual Protective Equipment (IPE)**

- **Defense Depot Susquehanna, PA**
  - Norfolk Ocean Terminal
  - Marine Corps Base Camp Lejeune

- **USAF Electronic Shipping Label**

Technology Update

Passive RFID technology is evolving…

- **Published standards on EPC Class 0 and Class 1, V1**
  - Class 0 – read only
  - Class 1, V1 – write once, read many

- **Draft standards under development for "Gen 2"**

- **Agile readers critical to success**
  - Frequency agile
  - Software/firmware upgradeable

Passive RFID tag data…Options under consideration

- **Use pre-printed data on tag as unique ID on tag**

- **Use EPC data constructs to write unique ID to tag**
  - SGTIN for UID item packaging
  - SSCC for box, case and pallet

- **Use DoD data constructs to write unique ID to tag**
  - UID (construct 1 or 2) for UID item packaging
  - TCN for box, case or pallet

One option will be selected by July 2004

Your role…

Steps towards compliance for your members

1. **Remain informed about DoD RFID policies as they mature**

2. **Determine the tagging needs for the goods you supply to DoD**
   - active or passive tag required
   - case/pallet/UID level tagging
   - consider working with RFID test labs to determine the best tag locations and orientations

Steps towards compliance (cont.)

3. **Consider conducting a small but realistic and scalable pilot program**

    – Implement with a 60-90 day duration with measurable results

    – Establish goals to learn what it will take to implement DoD's RFID policy

    – establish a business plan covering:

        • costs

        • performance metrics

        • success criteria

    – establish a test plan to insure performance metrics and success criteria are met

    – Use the knowledge gained from the pilot to create a strategy for fully implementing DoD's RFID policy

    – expand pilot business case to cover enterprise integration to help offset your investment in RFID technology

    – expand test plan to cover full implementation

We Need Your Help

- **To distribute the information regarding RFID requirements, lessons learned etc**

- **To provide feedback to DoD**
  - Channel information to/from the 43,000 DoD Suppliers
  - Participate in future Industry discussions
  - Implement your own pilots
  - Use February 20, 2004 policy update memorandum as guide
  - Upcoming DFAR clause in Federal Register May 2004